REMARKS

In the Official Action mailed on **April 21, 2004** the Examiner reviewed claims 1-30. Claims 1-3, 7-10, 11-13, 17-20, 21-23, and 27-30 were rejected under 35 U.S.C. §102(b) as being anticipated by Crank et al. (USPN 5,583,988, hereinafter "Crank"). Claims 4-6, 14-16, and 24-26 were rejected under 35 U.S.C. §103(a) as being unpatentable over Crank in view of SUN Microsystems, Inc ("C User's Guide Supplement for the Forte Developer 6 update 1 (Sun Workshop 6 update 1)", Part No. 806-6145-10, October 2000, Revision A, XP-002242198, hereinafter "SUN") further in view of Kosche et al. (USPN 6,718,542, hereinafter "Kosche").

Typographical Errors

Applicant has amended dependent claim 22 to correct a typographical error in the antecedent claim number. No new matter has been added.

Rejections under 35 U.S.C. §102(b) and 35 U.S.C. §103(a)

Independent claims 1, 11, and 21 were rejected as being anticipated by Crank. Applicant respectfully points out that Crank teaches a method and apparatus for performing **runtime checking** during program execution (see Crank, Abstract).

In contrast, the present invention is directed to type checking program source code for errors **prior to compilation and execution** (see page 8, lines 10-19 of the instant application). Note that the purpose of type checking is to catch potential errors at compile time before they arise at run-time. Type checking program source code for errors prior to compilation and execution is advantageous because it prevents errors during program runtime and the associated delays in correcting these errors including the subsequent recompilation and re-execution of the program. There is nothing within Crank,

either explicit or implicit, which suggests analyzing program source code for errors prior to compilation and execution. Note that although FIG. 29B of Crank detects an error involving a statement that contains a type casting operation at runtime, this error does not directly involve the type casting operation. Note that the error would occur in any reference to a[11] regardless of whether a[11] is involved in a type casting operation or not.

Accordingly, Applicant has amended independent claims 1, 11, and 21 to include the limitations of dependent claims 7, 17, and 27, respectively, and to clarify that the invention type-checks program source code for errors **prior to compilation and execution**. These amendments find support on page 8, lines 10-19 of the instant application. Dependent claims 7, 17, and 27 have been canceled without prejudice. Note that Examiner refers to Crank, FIG. 27, library object code 1108 in the rejection of claims 7, 17, and 27. Applicant respectfully points out that library object code 1108 does not have source code available, and therefore its source code cannot be type-checked for errors prior to compilation and execution.

Hence, Applicant respectfully submits that independent claims 1, 11, and 21 as presently amended are in condition for allowance. Applicant also submits that claims 2-6 and 8-10, which depend upon claim 1, claims 12-16 and 18-20, which depend upon claim 11, and claims 22-26 and 28-30, which depend upon claim 21, are for the same reasons in condition for allowance and for reasons of the unique combinations recited in such claims.

CONCLUSION

It is submitted that the present application is presently in form for allowance. Such action is respectfully requested.

Respectfully submitted,

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Date: May 4, 2004

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